(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 27 January 2005 (27.01.2005)

PCT

(10) International Publication Number WO 2005/007415 A2

- (51) International Patent Classification7: B41J 2/175, 2/14
- (21) International Application Number:

PCT/GB2004/003116

- (22) International Filing Date: 16 July 2004 (16.07.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0316584.2

16 July 2003 (16.07.2003) GB

- (71) Applicant (for all designated States except US): XAAR TECHNOLOGY LIMITED [GB/GB]; Science Park, Cambridge CB4 OXR (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): HARVEY, Robert, Alan [GB/GB]; 44 Windsor Road, Cambridge CB4 3JN (GB). MANNING, Howard, John [GB/GB]; 4 Bright's Crescent, Edinburgh EH9 2DB (GB).
- (74) Agents: GARRATT, Peter, Douglas et al.; Mathys & Squire, 100 Gray's Inn Road, London WC1X 8AL (GB).

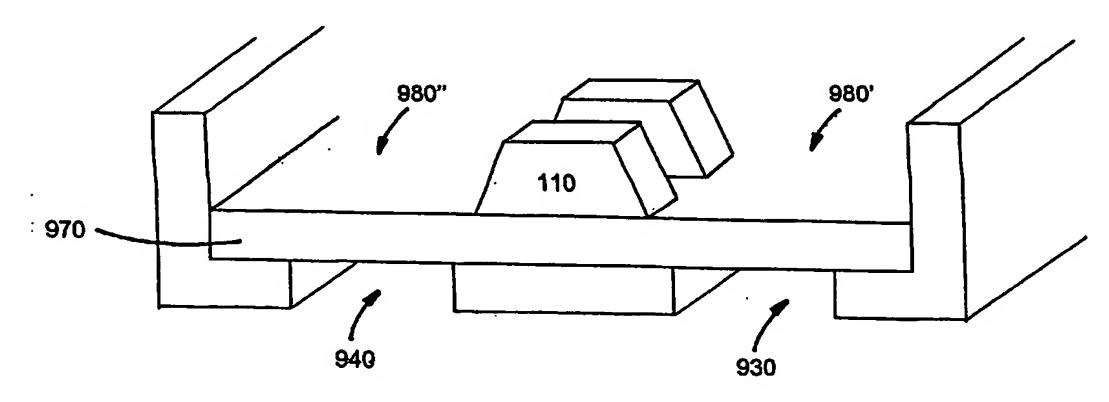
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CII, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, HL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DROPLET DEPOSITION APPARATUS



(57) Abstract: Inkjet printhead has an array of ejection chambers spaced in an array direction, each communicating with an ink orifice; inlet an outlet plenum chambers communicating with the ejection chambers; and inlet and outlet manifolds extending in the array direction and communicating with the plenum chambers through a porous sheet. Whilst there are substantial net ink flows in the array direction in the inlet and the outlet manifolds, there is substantially no net flow in the array direction in the inlet or outlet plenum chamber. Ink pressure is therefore constant over the array of ejection chambers.

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 27 January 2005 (27.01.2005)

PCT

(10) International Publication Number WO 2005/007415 A3

(51) International Patent Classification7: B41J 2/175, 2/14

(21) International Application Number:

PCT/GB2004/003116

(22) International Filing Date: 16 July 2004 (16.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 0316584.2 16 July 2003 (16.07.2003) GB

(71) Applicant (for all designated States except US): XAAR TECHNOLOGY LIMITED [GB/GB]; Science Park, Cambridge CB4 OXR (GB).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): HARVEY, Robert, Alan [GB/GB]; 44 Windsor Road, Cambridge CB4 3JN (GB). MANNING, Howard, John [GB/GB]; 4 Bright's Crescent, Edinburgh EH9 2DB (GB).
- (74) Agents: GARRATT, Peter, Douglas et al.; Mathys & Squire, 120 Holborn, London EC1N 2SQ (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, HD, HL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

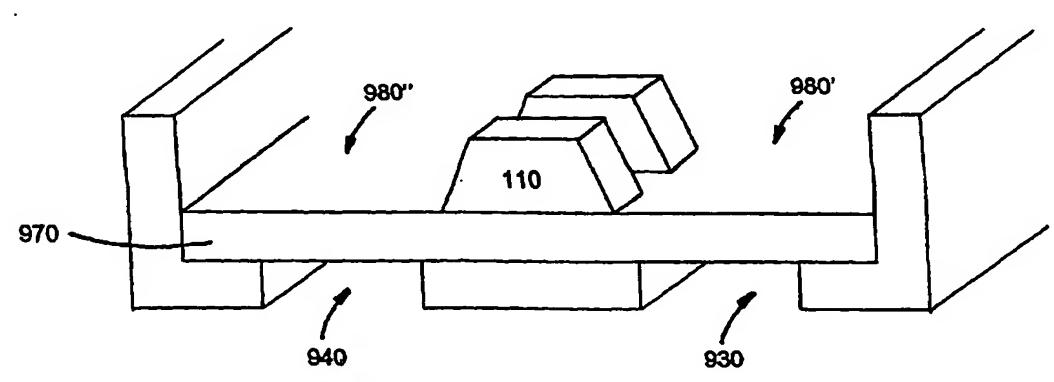
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 14 April 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DROPLET DEPOSITION APPARATUS



(57) Abstract: Inkjet printhead has an array of ejection chambers spaced in an array direction, each communicating with an ink orifice; inlet an outlet plenum chambers communicating with the ejection chambers; and inlet and outlet manifolds extending in the array direction and communicating with the plenum chambers through a porous sheet. Whilst there are substantial net ink flows in the array direction in the inlet and the outlet manifolds, there is substantially no net flow in the array direction in the inlet or outlet plenum chamber. Ink pressure is therefore constant over the array of ejection chambers.